Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, DC

In the Matter of:	)	
	)	
Amendment of Part 97 of the Commission's	)	**RM-11306**
	)	
Rules Governing the Amateur Radio Services	)	

Comments in Support of RM-11306

By

Victor Poor, W5SMM

1. *BACKGROUND AND INTRODUCTION*

I have been an active radio amateur for over 50 years and hold the amateur call sign W5SMM. I have also been an active member of the ARRL for over 50 years and have served on committees advising the ARRL board of directors and most recently I served as chairman of the ARRL Ad Hoc HF Digital Committee. My interest in amateur radio has been strongly oriented to experimental work and has included activities as diverse as amateur television, radio facsimile, weak signal detection, and digital transmission modes. I built and operated an amateur RTTY station as early as 1954 and have been active in developing improved HF digital transmission techniques for most of my amateur 'career.' My professional life has included 10 years as Engineering Vice-President of Frederick Electronics Corporation (a manufacturer of HF radio system for government, and record common carriers) , 15 years as Executive Vice-President and Chief Technical Officer for Datapoint Corporation (a manufacturer of computer, telephone, and digital network systems) , and 3 years as Chairman and President of Image Data Corporation (a manufacturer of remote imaging systems used primarily in the field of radiology). I am now retired. I have no financial interest in the outcome of the proposed rule making.

2. DISCUSSION

These comments are intended to be in full support of the subject ARRL petition for rule making. The arguments in favor of the proposed rule changes are well articulated in the petition and I will not repeat them here.

The arguments both for and against the proposed changes have been well vented within the amateur community and I believe that the ARRL petition fairly represents the best interests of the community as a whole. No existing service or mode of operation would be denied access to spectrum under the proposed rules and at the same time the new rules do provide a number of advantages.

1. **Interference reduction.** Separation by bandwidth is the most feasible means available without specifying specific signaling waveforms for avoiding conflicts due to radically differing mode of operating.
2. **Greater Freedom to Experiment**. Specifying only the maximum bandwidth of a signaling waveform provides the freedom needed to try new technologies and to refine existing ones without being constrained by rule or the need to apply for a special temporary authorization.
3. **Freedom from Application Limitations.** The freedom to use or combine voice, voice messaging, text, images, binary data (such as computer programs) in any bandwidth segment appropriate to transmission scheme used will clear up much of the ambiguity of the present rules and encourage more exciting and efficient modes of operation.

Some amateurs have expressed fear that the proposed new rule will lead to new modes 'overrunning' their current modes of operation causing them to effectively lose privileges they currently enjoy. The potential for completely incompatible modes resulting in pervasive interference can, should, and will be addressed by volunteer band planning by the amateur community. Social pressure is a very strong force and, of course, deliberate and willful interference will still be proscribed by the rules. By way of example, today's

rules permit digital operation anywhere SSB operation is allowed and no overrun of SSB operation has taken place and there is no reason to think it would occur if the proposed new rules were enacted.

Another fear expressed by some amateurs is the continuance of what is frequently referred to as 'semi-automatic' operation. The fear is that it will overrun the bands with 'robot' stations that will run roughshod over all other users. (Semi-automatic refers to operations where transmissions may be initiated by at an operator at only one end of a two way communication.) I believe this fear reflects a misunderstanding of the nature of many digital operating modes. Once digital communication takes place at speeds faster than one can type on a keyboard or send with a CW keyer it is by its very nature 'semi-automatic.' One operator initiates a link between two stations, sends or receives stored data of whatever type and drops the link. It matters little or not at all if a second operator is observing the process at the passive end of the link. An important feature of higher speed digital operation is the opportunity to reduce the total 'footprint' that a data exchange makes on the spectrum. It has been shown that efficient high speed digital modes have a lower bandwidth/time product than typical keyboard-to-keyboard modes even though the latter uses a narrower bandwidth. Efficient higher speed modes of operation make the spectrum accessible to more users than would otherwise be possible with the limitations of available space on HF bands. Many more users can have access to amateur radio services using fast 'get on and get off' semi-automatic modes such as are offered using Pactor and Winlink than by keyboard, SSB, or CW modes. This is not to discredit the traditional modes but to show the value of newer technologies. There are already thousands of radio amateurs using this mode of operation and doing so with far less impact on the available spectrum than the same number of users would have using SSB or keyboard-to-keyboard modes.

Respectively submitted, Victor Poor, W5SMM